GUIDED PRACTICE

MATERIALS

tape

ruler

bar magnet

20 paper clips

Magnetic Force and Distance

Ask a question: How does distance affect magnetic force?

1. Tape the ruler on to a table. Put the paper clips next to the 0-centimeter mark on the ruler.

2. Put one end of the bar magnet next to the 12-centimeter mark on the ruler.

3. **Observe** if the paper clips move toward the magnet. Count the paper clips that are pulled toward the magnet. **Record your observations.**

4 Move the end of the bar magnet from the 12-centimeter mark to the 10-centimeter mark on the ruler. Repeat Step 3.

5 Repeat Steps 2 and 3 by moving the end of the bar magnet next to the following marks on the ruler: 8 centimeters, 6 centimeters, 4 centimeters, 2 centimeters, and 0 centimeters.

Distance (cm)	Number of Paper Clips
12	
10	
8	
6	
4	
2	
0	

6 **Draw a conclusion.**

How does distance affect magnetic force?